

Title (en)  
Shrink fit holder and methods of drilling and reaming

Title (de)  
Schrumpffutter und Bohr- und Reibverfahren

Title (fr)  
Mandrin à ajustement fretté et procédé de forage ou d'alésage

Publication  
**EP 1488876 A3 20060823 (EN)**

Application  
**EP 04251426 A 20040312**

Priority  
GB 0313976 A 20030617

Abstract (en)  
[origin: EP1488876A2] There is disclosed a unitary drill bit and chuck structure comprising: a drill bit (46); and a chuck (30) enclosing a portion of the drill bit (46) and having a thread (24) located thereon to permit attachment of said unitary drill bit and chuck structure to a drilling device; ##### in which the chuck (30) is heat shrunk onto the drill bit (46) thereby forming the unitary structure through direct bonding of the chuck (30) with the drill bit (46).

IPC 8 full level  
**B23B 31/02** (2006.01); **B23B 31/00** (2006.01); **B23Q 3/12** (2006.01)

CPC (source: EP GB US)  
**B23B 31/1179** (2013.01 - EP US); **B23P 11/02** (2013.01 - GB); **B23Q 3/00** (2013.01 - GB); **B23Q 3/12** (2013.01 - EP GB US); **B23B 2222/84** (2013.01 - EP US); **B23B 2222/92** (2013.01 - EP US); **B23B 2226/31** (2013.01 - EP US); **B23B 2231/04** (2013.01 - EP US); **B23B 2231/24** (2013.01 - US); **B23B 2250/12** (2013.01 - EP US); **B23B 2260/138** (2013.01 - EP US); **Y10T 29/49865** (2015.01 - EP US); **Y10T 279/16** (2015.01 - EP US); **Y10T 279/3418** (2015.01 - EP US); **Y10T 408/03** (2015.01 - EP US); **Y10T 408/44** (2015.01 - EP US); **Y10T 408/907** (2015.01 - EP US); **Y10T 409/304032** (2015.01 - EP US)

Citation (search report)

- [XY] EP 1004378 A1 20000531 - MST CORP [JP]
- [YA] US 3208722 A 19650928 - RODRIQUEZ FRANK G, et al
- [X] US 5311654 A 19940517 - COOK HAROLD D [US]
- [X] DE 19638808 A1 19980326 - FX MARQUART GMBH [DE]
- [X] US 2003088972 A1 20030515 - HAIMER FRANZ [DE]
- [A] DE 20107664 U1 20010802 - HORNUNG GMBH HERMANN HORNUNG P [DE]
- [A] US 3097571 A 19630716 - KAMAN FRANK A
- [A] US 3797583 A 19740319 - QUACKENBUSH R
- [A] US 5716170 A 19980210 - KAMMERMEIER DIRK [DE], et al
- [A] DE 2427257 A1 19760108 - BOSCH GMBH ROBERT
- [A] US 5829926 A 19981103 - KAMMERMEIER DIRK [DE]
- [X] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 22 9 March 2001 (2001-03-09)

Cited by  
US7192226B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1488876 A2 20041222**; **EP 1488876 A3 20060823**; DE 04251426 T1 20050623; GB 0313976 D0 20030723; GB 0413559 D0 20040721; GB 2402898 A 20041222; GB 2402898 B 20060614; US 2004258494 A1 20041223; US 7192226 B2 20070320

DOCDB simple family (application)  
**EP 04251426 A 20040312**; DE 04251426 T 20040312; GB 0313976 A 20030617; GB 0413559 A 20040617; US 87167804 A 20040615